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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,963	11/18/2003	Igor Palley	P-107269.6(uti)	8859

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EXAMINER

HANAN, DEVIN J

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,963

Applicant(s)

PALLEY, IGOR

Examiner

Devin Hanan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20, 32 and 34 is/are allowed.
- 6) ☒ Claim(s) 21-31, 33 and 35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/18/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

Figure 3b should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the fourth paragraph of 35 U.S.C. 112:

A claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed.

Claims 33 and 35 are rejected under 35 U.S.C. 112, fourth paragraph, as failing to further limit the preceding independent claim. Claims 33 and 35 recite "A turbine having one or more composite turbine blades constructed according to claim..." See section 608.01(n) part III of the MPEP, Infringement test. Corrections including the insertion of the phrase --the method in - - after the word "to" would fix the errors.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21, 22 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kennon (U.S. Patent 4,237,384).

Kennon discloses a turbine with one or more blades (163, col. 9 lines 34-38) constructed of discrete straight members of uniform cross section that are joined to approximate a turbine blade of continuous compound curvilinear design (col. 9 lines 50-61).

Regarding claim 22, Kennon discloses a turbine with one or more blades (163) constructed of a continuous member of uniform cross section formed into discrete straight sections so that said formed continuous member approximates a turbine blade of continuous compound curvilinear design.

Regarding claim 26, Kennon discloses turbine blades wherein any cross section of said turbine blades perpendicular to said turbine axis of rotation is tangential, within an approximate plus or minus six degree range, to a circular plane containing said cross section and a turbine diameter (figure 8).

Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by Cooksey (U.S. Patent 958,599).

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Cooksey discloses 29 a turbine with one blade constructed of discrete straight members (figure 1 starts as a rectangle), some members having a non-uniform cross section that increases as proximity to said turbine axis of rotation decreases (figure 1 also show the bent blade with the frontal area decreasing away as you move away from the axis or rotation).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (U.S. Patent 2,106,928) in view of Cooksey.

Lee discloses a turbine having one or more blades constructed of discrete members of uniform cross section (see figure 3) that are joined to approximate a turbine blade of continuous compound curvilinear design (see figure 2).

Regarding claim 22, Lee discloses a turbine having one or more blades constructed of a continuous member of uniform cross section (see figure 3) formed into discrete sections so that said formed continuous member approximates a turbine blade of continuous compound curvilinear design.

Regarding claim 23, Lee discloses a turbine with any adjacent first and second turbine blades, a portion of said first turbine blade that connects with a first end of said

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turbine axis of rotation (14) lies in the same position with respect to said turbine axis of rotation as a portion of said second turbine blade that connects with said second end of said turbine axis of rotation (16, see figure 2).

Regarding claim 24, Lee discloses a turbine with any adjacent first and second turbine blades, a portion of said first turbine blade (one of three, 15) that connects with a first end of said turbine axis of rotation (14) lies in the same position with respect to said turbine axis of rotation as a portion of said second turbine blade (one of three, 15) that connects with said second end of said turbine axis of rotation (16, see figure 2).

Regarding claim 25, Lee discloses turbine blades wherein any cross section of said turbine blades perpendicular to said turbine axis of rotation is tangential, within an approximate plus or minus six degree range, to a circular plane containing said cross section and a turbine diameter (col. 2 lines 23-26).

Regarding claim 26, Lee discloses turbine blades wherein any cross section of said turbine blades perpendicular to said turbine axis of rotation is tangential, within an approximate plus or minus six degree range, to a circular plane containing said cross section and a turbine diameter (col. 2 lines 23-26).

Regarding claim 27, Lee discloses a turbine with a straight line joining the centers of pressure of each cross section of any blade section does not lie in any plane containing said turbine axis of rotation (figure 2).

Regarding claim 28, Lee discloses a turbine with a straight line joining the centers of pressure of each cross section of any blade section does not lie in any plane containing said turbine axis of rotation (figure 2).

Lee does not disclose that the blades are constructed out of straight members.

However, Cooksey teaches of constructing blades out of straight members and bending them into appropriate shapes to form flukes to throw water (col. 1 lines 8-18).

Since Lee and Cooksey are from the same field of endeavor, the bending of straight members as disclosed by Cooksey would have been recognized in the pertinent art of Lee.

It would have been obvious at the time the invention was made to one of ordinary skill in the art that the blades of Lee could have been constructed out of the straight members of Cooksey to form flukes to throw water (col. 1 lines 8-18).

Prior Art

The patent to Clancy (U.S. Patent 4,718,821) was cited for its teaching of three curvilinear blades (12).

The patent to Morris (U.S. Patent 1,851,680) was cited for its teaching of three curvilinear blades (20).

The patent to Zapata Martinez (U.S. Patent 4,236,866) was cited for its teaching of another was to orient curvilinear blades rotating on a ring.

Allowable Subject Matter

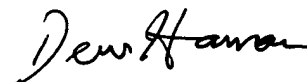
Claims 1-20, 32 and 34 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Hanan whose telephone number is 571-272-6089. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on 571-272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Devin Hanan
Patent Examiner
Art Unit 3745



EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
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5/2/05